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IN THE UNITED STATES PATENT & TRADEMARK OFFICE

IN RE APPLICATION OF :  
Tetsuo MIYAYAMA :EXAMINER: WEBMAN  
SERIAL NO: 10/532,832 :  
FILED: JANUARY 4, 2006 :GROUP ART UNIT: 1616  
FOR: COSMETICS EXCELLENT IN :  
TEXTURE AND OIL-  
DISPERSIBILITY

DECLARATION UNDER 37 C.F.R. §1.132

COMMISSIONER FOR PATENTS  
ALEXANDRIA, VIRGINIA 22313

SIR:

Now comes Shigeru Oyama who deposes and states:

1. I am a graduate of Science Univ. of Tkyo and received my M.S. in the year 1990.

2. I have been employed by Idemitsu Kosan Co., Ltd., for 18 years as a researcher in the field of particle technology.

3. That the following experiments were carried out by me or under my direct supervision and control.

4. Crosslinked products of poly-γ-glutamic acid having four different average particle sizes were prepared by the methods given in Item 5 of this Declaration.

The above four crosslinked products were tested for feeling of human skin. The method and results are given in Item 6 of this Declaration.

5. A crosslinked product of poly- $\gamma$ -glutamic acid having a gelation of 91 % and an average particle size of 200  $\mu\text{m}$  was prepared by the method as described in PRODUCTION EXAMPLE 1 of the specification of the present application. The thus obtained crosslinked product of poly- $\gamma$ -glutamic acid was subjected to fine pulverization treatment using a ball mill and a jet mill, thereby obtaining particles of the crosslinked product of poly- $\gamma$ -glutamic acid having an average particle size of 48  $\mu\text{m}$ .

The obtained particles were further subjected to fine pulverization treatment, thereby obtaining particles of the crosslinked product of poly- $\gamma$ -glutamic acid having an average particle size of 33 $\mu\text{m}$ . Similar pulverizations were repeated further, thereby obtaining particles of the crosslinked products of poly- $\gamma$ -glutamic acid having average particle sizes of 21 and 1.2  $\mu\text{m}$ . Thus, the crosslinked products of poly- $\gamma$ -glutamic acid having four different average particle sizes of 48, 33, 21 and 1.2  $\mu\text{m}$ .

6. The crosslinked product of poly- $\gamma$ -glutamic acid having average particle size of 48  $\mu\text{m}$  obtained above was blended with water, ethyl alcohol and a perfume at the same mass ratio as that of Example 2 in Table 1 of the specification of the present application, thereby producing a skin cosmetic material. The skin cosmetic material was applied to human skin and then dried to evaluate a moist feeling, a tidy feeling and a neat feeling thereof according to the following evaluation ratings which are the same as in the specification.

Moist feeling: A:Good; B:Poor

Tidy feeling: A:No stickiness; B:Sticky

Neat feeling: A:Good; B:Poor

The above test is referred to Example 3 in this Declaration.

By using each of the crosslinked products of poly- $\gamma$ -glutamic acid having average particle sizes of 33, 21 and 1.2  $\mu\text{m}$  obtained above, each of skin cosmetic materials were produced and applied to human skin and then dried to evaluate a moist feeling, a tidy feeling and a neat feeling thereof according to the same evaluation ratings as above. These tests are referred to Examples 4 to 6, respectively.

7. The results of Examples 3 to 6 are given in the table below including the results of Example 2, Reference Example 2 and Comparative Example 3 for comparison.

		R. E.	Example				C. E.	
		2	3	4	5	2	6	3
Amount blended (% by mass)								
Water		89.0	89.0	89.0	89.0	89.0	89.0	89.0
Ethyl alcohol		10.0	10.0	10.0	10.0	10.0	10.0	10.0
Perfume		0.5	0.5	0.5	0.5	0.5	0.5	0.5
Crosslinked product of poly- $\gamma$ -glutamic acid: Average particle size	200 $\mu$ m	0.5						
	48 $\mu$ m		0.5					
	33 $\mu$ m			0.5				
	21 $\mu$ m				0.5			
	10 $\mu$ m					0.5		
	1.2 $\mu$ m						0.5	
	0.1 $\mu$ m							0.5
Evaluation results								
Moist feeling		A	A	A	A	A	A	B
Tidy feeling		A	A	A	A	A	A	A
Neat feeling		B	A	A	A	A	A	A

R. E. : Reference Example

C. E. :Comparative Example

8. The results shown in Item 7 support the range of an average particle size of 1 to 50  $\mu\text{m}$  given in Claim 1 of the specification of the present application.

9. The undersigned petitioner declares further that all statements made herein of his own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code and that such willful false statements may jeopardize the validity of this application or any patent issuing therefrom.

10. Further deponent saith not.

Shigeru Oyama  
Signature

28.2.2008  
Date